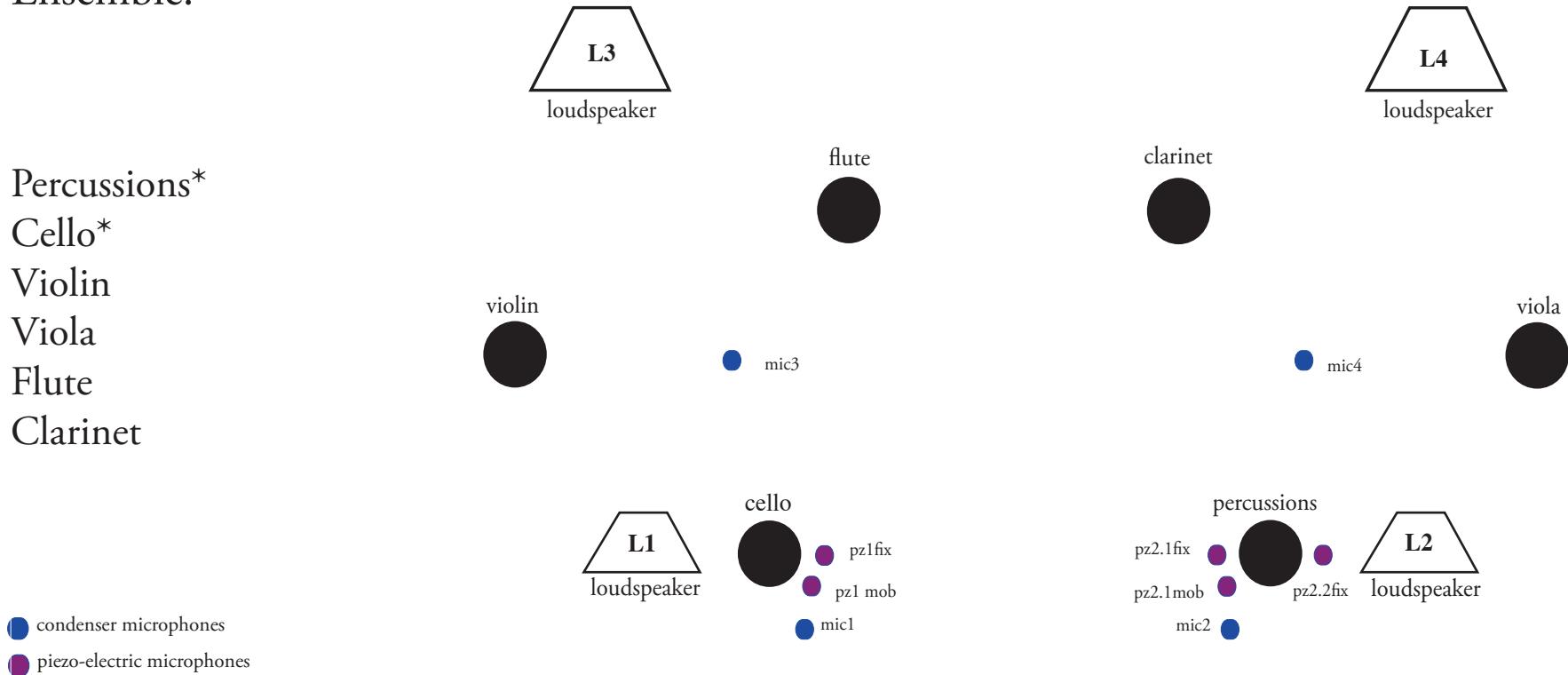


Residual

for ensemble

Daniela Fantechi

Ensemble:



* Cello and Percussions (Timpani - 32" inch, Marimba - 5 Octave, Güiro, Crotales - G, G#, A, B, C#) will be provided with a set of 5 piezoelectric contact microphones, called simply piezo, from now on. The Cello will have one piezo which will be used to play on the instrument and another one which will be fixed on its body. Concerning the Percussion one piezo will be fixed on the surface of the Timpani, another one on the lowest C-key of the Marimba and a third one will be used to play the Crotales and the Güiro. Both the percussion player and the cellist will have one pedal to control the volume of the mobile piezos used to play.

Amplification:

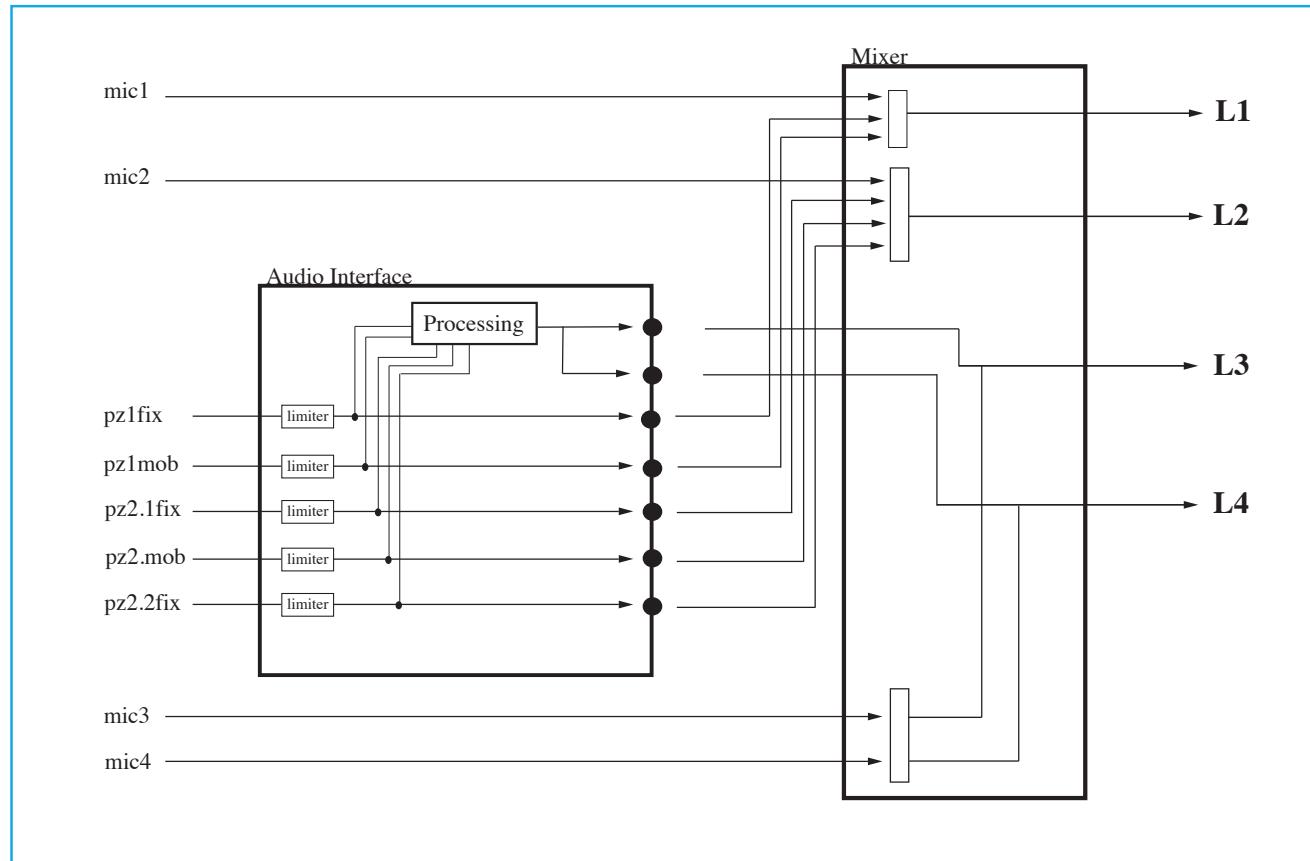
violin, flute, clarinet, viola:

mic3 } → L3 / L4

cello : mic1
pz1fix
pz1mob } → L1

perc : mic2
pz2.1fix
pz2.1mob
pz2.2fix
(pz2.2mob) } → L2

Processed signals from
cello and percussion
as stereo out on L3 and L4



Documentation for the electronics:

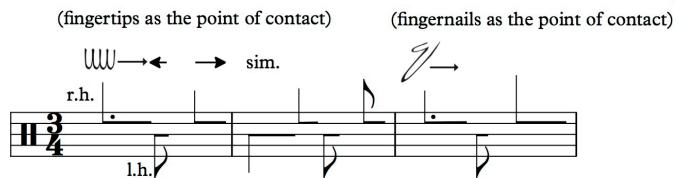
The patch is written in SuperCollider and it contains the following instruments: 1 Recorder, 1 Player, 1 Granulator, 1 Delay. The MIDI controller required to play the piece should have 5 sliders to control the volume of the Granulators, 4 buttons to activate the Delays. The notated material enclosed in rectangles corresponds to the buffers that have to be recorded live (the start and the end of the recording are already programmed in each related cue), or to the material that is going to be processed through the delay. Both the percussion player and the cellist should be able to control the volume of the mobile piezo with a volume pedal. The balance between the volume of the other piezos used for amplification and the condenser microphones has to be checked during the setup, according to the features of the space where the piece will be performed.

Performance Notes

Percussions - actions with the piezo, or amplified by the piezo

Timpani (from b.1 to b.127)

One piezo is fixed on the timpani. Slide the hands on the surface of the instrument, alternating left and right hand, in order to mark the rhythm. The right hand always moves from left to right, while the left hand always move in the opposite direction, from right to left. The surface of the timpani has to be played with the fingernails as the point of contact (louder sound) or with the fingertips (softer sound).



Marimba

One piezo is fixed on the timpani. Always to be played with bow.



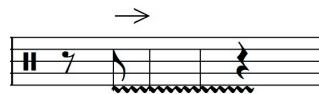
Crotales

Always tap the crotales with the edge of the piezo, leaving it resonating.



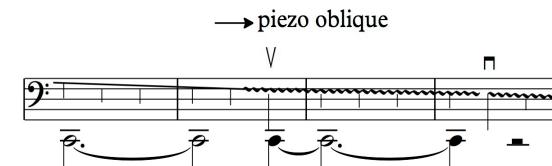
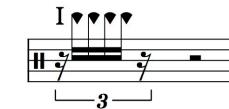
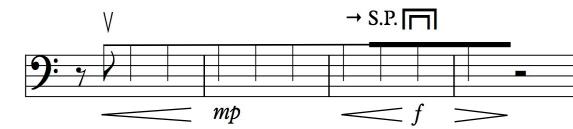
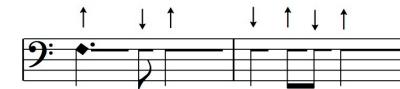
Güiro

Always to be played with the piezo, using the thumb to dampen the sound a bit.



Cello - actions with piezo

From b.1 to b.100 the piezo has to be placed flat on the indicated string in the position more or less corresponding to the diamond-head note. When a string change is required it has to be done moving the piezo from one string to the contiguous one as gently as possible on the correspondent height. The piezo is hold still when notes are connected by straight lines, whether it has to do small glissandos, according to the indicated direction, when the lines are oblique. The bow has always to be "molto sul tasto" and it always has to alternate direction, in order to mark the rhythm. Vertical arrows stand for a vertical movement of the bow in the range between the bridge and the end of the fingerboard. Down and up symbols of the bow indicate the ordinary horizontal movement, always with the changing of the direction.



From b.129 to b.212 again the piezo has to be placed flat on the indicated string in the position more or less corresponding to the diamond-head note. In this section, movements are slower and the sound quality should be extremely airy, except for those moments in which the dynamic grows and more pressure and the movement of the bow toward the bridge are required.

From b.216 to b.266 all actions with the bow are similar to the ones of previous sections and the piezo is placed flat in the space between the bridge and the end of the fingerboard on the indicated string. Percussive actions instead have to be done tapping with the edge of the piezo the indicated string in a random point, but within the same range between the bridge and the end of the fingerboard, while dampening all the strings with the other hand.

From b.268 to b.293 a double stop is required and a balance has to be found between the sound of the IV open string and the sound of the III string played with the piezo. Gradually (at b.291) the piezo has to be moved from flat to oblique on the string. With a certain control of the pressure, the oblique piezo will produce a scraped sound and looking for the friction with the contour of the string with little and slow movements the scraped sound will be dark enough.

From b.295 right-hand and left-hand actions are separately notated. The left hand will iterate the short movement with the piezo oblique on the third string, looking for a dark scraped sound. The right hand will play with the bow the same string, simultaneously or not (when the right hand will play alone the left hand will hold the piezo still).

Violin and Viola

From b.1 to b.139 the rhythmical gestures have to be articulated between three different degrees of airy sounds. The first one should be as pitchless as possible, dampening the strings with the left hand (violin: bb.20-69, viola:bb.26-66). The bow has always to be "molto sul tasto" and it always has to alternate direction, in order to mark the rhythm. Vertical arrows stand for a vertical movement of the bow in the range between the bridge and the end of the fingerboard. Down and up symbols of the bow indicate the ordinary horizontal movement, always with the changing of the direction.

The second degree of airy sound (violin:bb.70-102, viola:bb.67-93) presents a small amount of pitch and it is obtained with semi-harmonics: same pressure of harmonics but using two fingers, the first one in the position indicated, the second one just behind in order to prevent natural harmonics to come out.

The third degree of airy sound is an harmonic sound - natural or artificial - that has to be played with a small presssure of the bow, always "molto sul tasto".

Flute and Clarinet

From blowing to ordinario sound.

Multiphonics for the flute

Multiphonics for the clarinet

Sounding:

Residual

Quasi meccanico

$\text{♩} = 120$ circa

Daniela Fantechi

Cello

Timpani
(fingertips as the point of contact)

Perc.



10

Cello.

[Piezo on the IV]

Perc.



19

Vl.

Vla.

Cello.

Perc.

III
IV
 \downarrow
 \uparrow

II
III
 \downarrow
 \uparrow

III (change the string as smoothly as possible, moving the piezo to the correspondent position)

\leftarrow WW

Musical score for strings and percussion, page 28. The score includes parts for Viola (Vl.), Violin (Vla.), Cello, and Percussion (Perc.). The violins play eighth-note patterns with dynamic markings *mp*, *mf*, *mp*, and *p*. The cellos provide harmonic support with sustained notes and eighth-note patterns. The percussion part features sustained notes and eighth-note patterns. Measure numbers 28 through 32 are indicated at the top of the page.

2

37

Vl.

Fl.

Cl.

Vla.

Cello.

Perc.

horizontal bow, light pressure,
molto S.T. in order to get an almost airy sound.
mf (keeping the sound as smooth as possible)

mf

mp

A musical score page showing six staves. The top staff is Viola (Vl.), followed by Flute (Fl.), Clarinet (Cl.), Violin (Vla.), Cello (Cello.), and Percussion (Perc.). Measure 55 starts with eighth-note patterns in the Vl. and Vla. staves. The Fl., Cl., and Cello staves play sustained notes with grace marks. The Perc. staff has sustained notes. Measure 56 begins with eighth-note patterns in the Vl. and Vla. staves. The Fl., Cl., and Cello staves play sustained notes with grace marks. The Perc. staff has sustained notes. Measure 57 begins with eighth-note patterns in the Vl. and Vla. staves. The Fl., Cl., and Cello staves play sustained notes with grace marks. The Perc. staff has sustained notes. Measure 58 begins with eighth-note patterns in the Vl. and Vla. staves. The Fl., Cl., and Cello staves play sustained notes with grace marks. The Perc. staff has sustained notes. Measure 59 begins with eighth-note patterns in the Vl. and Vla. staves. The Fl., Cl., and Cello staves play sustained notes with grace marks. The Perc. staff has sustained notes. Measure 60 begins with eighth-note patterns in the Vl. and Vla. staves. The Fl., Cl., and Cello staves play sustained notes with grace marks. The Perc. staff has sustained notes.

4 64

(ø) ----- semiharmonics (small amount of pitch)

Vl. Fl. Cl. Vla. Cello. Perc.

mf

ww→

73

mf (keeping the sound as smooth as possible)

Vl. Fl. Cl. Vla. Cello. Perc.

mf (keeping the sound as smooth as possible)

mf (keeping the sound as smooth as possible)

ww→

p

82

VI. Fl. Cl. Vla. Cello. Perc.

5

91

VI. Fl. Cl. Vla. Cello. Perc.

rall.

31 (light pressure, molto S.T.)

ppp, statico sempre

mp

rall.

Musical score for orchestra and percussion, page 6, measures 100-107. The score includes parts for Violin (Vl.), Flute (Fl.), Clarinet (Cl.), Viola (Vla.), Cello, and Percussion (Perc.). The tempo is indicated as $\text{♩} = 60$ circa. Measure 100 starts with a rest followed by a dynamic V . Measure 101 shows woodwind entries with dynamics V , ppp e statico, sempre, and pppp . Measures 102-103 show sustained notes with dynamics V and $\text{light pressure, molto S.T.}$. Measures 104-105 show woodwind entries with dynamics V and V . Measure 106 shows a dynamic V and a woodwind entry with dynamics V and $\text{light pressure, molto S.T.}$. Measures 107-108 show sustained notes with dynamics V and V .

Musical score for orchestra and percussion, page 109. The score includes parts for Violin (Vi.), Flute (Fl.), Clarinet (Cl.), Viola (Vla.), Cello, and Percussion (Perc.). The music consists of six staves. The first four staves (Vi., Fl., Cl., Vla.) play eighth-note patterns with dynamic markings like f , v , $\text{p}pp$, and $\text{p}ppp$. The Cello staff is mostly silent. The Percussion staff shows bass drum strokes with dynamic uu and a tempo marking pp .

Musical score for orchestra, page 7, measures 120-121. The score includes parts for Violin (Vl.), Flute (Fl.), Clarinet (Cl.), Viola (Vla.), Cello (Cello), and Percussion (Perc.). The key signature changes from B-flat major to A major at the beginning of measure 121. Measure 120 starts with a dynamic of *p* and continues through measure 121. Various performance instructions are present, such as *V*, *3*, *5 II*, *3*, *PPP*, *PPP*, *PPP*, *PPP*, *PPP*, *5 I*, *(#)*, and *V*. Measure 121 concludes with a dynamic of *p*.

144

Vl. Fl. Cl. Vla. Cello. Perc.

molto S.T. "mf" "mf"

molto S.T. pp

V

V

grain1



156

Vl. Fl. Cl. Vla. Cello. Perc.

molto S.T. "mf" "mf"

molto S.T. pp

molto S.T.

V

V

V

V

V

grain1

168

Vl. *p*
Fl. *ppp*
Cl. *ppp*
Vla. *pp*
Cello. *p* *mp*
Perc.

grain1

180

Vl. *pp* *ppp*
Fl. *pp*
Cl. *pp*
Vla. *pp*
Cello. *p* *mp*
Perc.

grain1

(grain1)

grain1

grain1

10

192

VI. Fl. Cl. Vla. Cello.

pp ppp f ppp f f ppp f f

Fl. Cl. Vla. Cello.

pp pp f f f f f f f f f f

Crotale hit the crotales with the edge of the piezo

Marimba played with bow (piezo is fixed on the C key)

Perc. (grain1)

204

VI. Fl. Cl. Vla. Cello.

3 pp f 3 mf f

3 pp f f p f f

VI. Fl. Cl. Vla. Cello.

f f f f f f f f f f f f

Crotale

Marimba

Perc.

molto S.T. → S.P. molto S.T. → S.P. molto S.T.

molto S.T. → molto S.T. (rec buffer marimba)

216

Vl. *pp* \gg

Fl. $\overbrace{3}$ $\overbrace{\text{''f''}}$

Cl. $\overbrace{3}$ $\overbrace{\text{''f''}}$

Vla. *pp* \gg

Cello. I \square *molto S.T.*
piezo beyond the fingerboard

Perc. $\overbrace{3}$ *mp* $\overbrace{3}$

51 $\overbrace{3}$ *pp* $\overbrace{3}$

p $\overbrace{3}$ *pp* $\overbrace{3}$

Tap I $\overbrace{3}$

Crotales f

7 (set grain1, grain2, grain3, grain4, grain5)
grain1

227

Vl. *pp* \gg

Fl. $\overbrace{3}$ $\overbrace{\text{''f''}}$

Cl. $\overbrace{3}$ *mp* $\overbrace{3}$

Vla. *pp* \gg

Cello. I \square $\overbrace{3}$ *mp* $\overbrace{3}$

Perc. Marimba $\overbrace{3}$ *mp* $\overbrace{3}$

Crotales f

51 $\overbrace{3}$ *pp* $\overbrace{3}$

mp $\overbrace{3}$

Crotales f

Cello-delay1

Perc-delay2

(grain1) grain1

Musical score for orchestra and piano, page 12, measures 240-245. The score includes parts for Violin (VI.), Flute (Fl.), Clarinet (Cl.), Viola (Vla.), Cello (Cello.), and Percussion (Perc.). The piano part is at the bottom. Measure 240 starts with a piano dynamic. Measure 241 begins with a melodic line in the woodwind section. Measure 242 shows a rhythmic pattern in the strings. Measure 243 features a melodic line in the woodwinds. Measure 244 continues the rhythmic patterns from the previous measures. Measure 245 concludes with a melodic line in the woodwinds.

2

Musical score for orchestra and electronics, page 252. The score includes parts for Viola (Vl.), Flute (Fl.), Clarinet (Cl.), Violin (Vla.), Cello (Cello.), and Percussion (Perc.). The score features various performance techniques like grace notes, slurs, and dynamic markings (molto S.T., mp, pp). The percussion part includes electronic delay effects labeled grain1, grain2, and perc-delay1 through perc-delay4.

266

Cello.

III V V V V V
 mp 3 3

IV molto S.T.
 p

Perc.

Perc-delay2
 (grain2)
 (grain1)

278

Cello.

Perc

grain4

grain2

290

Cello.

Perc

piezo oblique

From here on the actions of right
and left hand are separately notated

r.h. just bow, molto S.T. (still piezo on the string)

l.h. just piezo,
short movements of the piezo up or down
looking for the friction with the string

Güiro →

p played with piezo
[use the thumb to dampen the sound a bit]

[8] (rec buffer güiro)

[9] (set grain1, grain2, grain3)

302

Cello.

Perc

grain4

grain5

grain1

grain2

grain3

grain2

grain3

"mf"